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CADD News

Volume 10 June 2010



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Match Element Symbology with the ALT

Double Click to Fit

To quickly and easily fit the view, simply double click the middle mouse button.

View

key in V8i

Pressing the Alt key then left clicking on an element will change the active symbology to the element selected. Even after a command has been started for example place line. By pressing the ALT key and then selecting an element on the screen the line that is being placed will change symbology.

Pin & Roll Tabs

Dockable dialogs have been modernized in SS1 with the addition of pins to fix their docked location.

When pinned, the

dialog displays as a tab which will roll into the screen when the tab is clicked.

Once the cursor is moved away from the dialog, it will automatically roll up to its pinned location. The pin icon will be horizontal when pinned and upright when not pinned. Using pin and roll dialog can save on valuable screen real estate.

V8i SS1 Arrives.

CADD Services has been feverishly installing the latest and greatest version of MicroStation on all of the Department's CADD computers (MicroStation V8i SS1). We Started the Process in late February of this year and are just about finished with the rollout. Then it will be time to start again (only kidding). The rollout and installation should be finished by the middle of May which is a good 2 weeks or so ahead of schedule.

Most of the PC's within the Department have both V8 and V8i SS1 installed on them. As users get trained we are turning off V8 and enabling V8i SS1. If you haven't been switched over please contact CADD Services and we will take care of it.

While MicroStation V8i SS1 is a bit different than the previous V8i edition of MicroStation it is a good bit different (at least In the "look and feel" department) than V8 2004. It seems to take most users a bit of time to get familiar with the changes but as you do most users really seem to like it. So give it a chance, it really does grow on you. If you are still having problems getting use to SS1 then be sure to check out the recording of the

first MicroStation V8i SS1 webcast— MicroStation V8i Update webinar.

In just four hours Tim Merrill will take you through all the major changes and show you a few tips and hints on how to efficiently use the new version and keep you entertained all at the same time. If you didn't get a chance to "attend" any of the original webcasts be sure to check it out. Even if you did see the original it never hurts to have another look just in case you missed something the first time around. To view the video just go to the Training Video section in the CADD Training section of the NCDOT CADD IntraNet site at (you must login first)

https://intranet.dot.state.nc.us/portal/Home/Teams/IT/CADD/CADDTraining/TrainingVideos/tabid/139/Default.aspx

The data files and a pdf training guide for the webinar are available (for NCDOT employees Only) in the Document Library in the CADD Support section of the site under Training.

https://intranet.dot.state.nc.us/portal/Home/Teams/IT/CADD/CADDSupport/tabid/142/Default.aspx

Western Division Training Facilities Still up in the Air

As reported in the previous edition of the CADD News IT West (aka The Western Divisions CADD and PC Training and Support Center) lost it's lease at CVCC on September 30, 2008. When and where IT West will relocate and re-open is currently being discussed but as of the publication of this newsletter no decisions have been made. Until such time that we acquire a new facilily please feel free to contact Rande Robinson at 828.466.5526 about CADD issues or David Dietrich at

V8i Update Video

919.386.9116 for PC training or

PC software support issues.

A recording of the first V8i update webinar is available on the NCDOT Intranet at

https://intranet.dot.state.nc.us/ portal/Home/Teams/IT/CADD/ CADDTraining/TrainingVideos/ tabid/139/Default.aspx

Note this video last approximately 4 hours long.

Free videos from Envision On the Web

Freeware video demo **View Rotation** - http://bit.ly/aS0CCw

Freeware video demo **View Model** - http://bit.ly/a2L56L

Freeware video demo **View Levels** - http://bit.ly/cXtHOM

CMT 0004 Advance Widening Templates and Procedure

Question:

In criteria I can create a dummy grade and give a pavement depth and widening template are drawn using the elevation at the edge of existing pavement. Can this be done in Corridor Modeling?

Answer:

Our current template library can only handle widening sections with a **proposed grade** and superelevation (Criteria Widening Template "Config 3"). After the core templates have been delivered to meet our May 2010 deadline, we will formalize a procedure to do advance widening templates, similar to Config 1 and 2.

"Config 1" - Dummy/No Grade (not used) and Match Existing Superelevation

- Separate template with a null point sampling the existing cross slope 1' inside the EEOP.
- Minimum resurfacing depth to set as a parametric constraint.

"Config 2" - Dummy/No Grade (not used) Initially and Option to Match Existing Superelevation or Override with AASHTO SE Input

- Separate template using overlay and stripping components.
- Use "Cross Slope Optimization" feature to set existing or design cross slopes (super).
- Use "Vertical Overlay Adjustment Settings" to set the minimum resurfacing depth.
- Use "Smooth Overlay Vertical Alignment" feature to set a resurfacing grade for the project.

Note that for a "Config 1" type of work, the null points are integrated into the template and therefore this procedure only requires a single template. "Config 2" is a 2-step process. First use the overlay/ stripping components with "Cross Slope Optimization" and overlay tools. This is a simple component consisting of a single line from centerline to the EEOP on both sides. Then transfer the resurfacing grade and superelevation data to the complete core roadway templates which currently are in our template library.



Civil Enhancements in V8i SS1

How can I use these tools today in my workflow?"

First of all, our investment in feature tables (SMD, DDB) is preserved. You continue to use these files in their current form to control symbology and annotation. No need to reproduce this information in a new file format.

For Data Acquistion:

This is Bentley's new method for downloading survey data into MicroStation. The Location and Surveys Unit is investigating to determine how to best implement this tool at NCDOT. At this time, we discourage the use of this tool **in production** until a department standard or best practice can be established.

For Geometry (Roundabouts and Civil Accudraw are part of Geometry)

- 1. Construct horizontal layouts such as roundabouts, alignments, pavements, parking, etc. using the new Geometry tools.
- 2. Based on the features used (XIN, DDB or PSS items) these geometric elements can be automatically written into GPK, ALG or FIL.
- Then you can use the MX, InRoads or GEOPAK geometry tools to produce profiles and continue the design process.

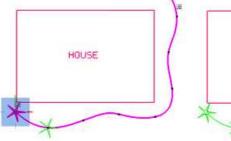
Array Along Path (5.5.10 Envision News)

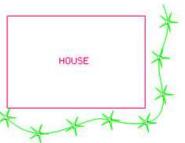
In the newer releases of MicroStation an option was added to the Construct Array tool. The older options included Rectangular and Polar now there is a new option Along Path. This method can be accomplished by Distance, Number, or Both.



- 1. **Number** defines the number of items placed along a path.
- 2. **Distance** defines the distance between items placed along a path.
- 3. **Both** defines both the number and distance of elements placed along the path.











With each new version of software comes the never ending activity of learning how the program's great new features work and which old ones don't. The introduction of MicroStation V8 and its associated programs are no exception.

The additions of unlimited named levels, models and a slew of user interface enhancements can make one's first attempt to use V8 a bit over whelming. If you need training for a new employee or feel you need a refresher course in any of our CADD products, all you need to do is go to the CADD Support section of the NCDOT Intranet Portal at:

https://intranet.dot.state.nc.us /portal/Home/Teams/IT/CADD/ CADDSupport/tabid/142/ Default.aspx

Then select Training from the Document Library CADD Menu. From the Training page download and fill out the CADD request Training form and mail the form to:

Steve Brown Engineering Application Services 1597 Mail Service Center Raleigh, NC 27699-1597

CADD Services will get you into the next available class provided there is no waiting list.

Remember that it is not necessary to continue to fill out requests if a request is on record. If in doubt email Steve at sbrown@ncdot.gov

Also, when making a request, check off all the classes that you wish to take. (i.e. It's not necessary to complete MicroStation before you can request GEOPAK). Once we receive and enter a request our database keeps up with them.



Copy and Increment double negatives EatyourCAD, 05/03/10

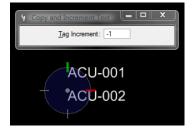
Using the Copy and Increment Text tool can provide some unexpected behavior if your text contains certain characters.



For example, V8i now reads anything with a minus in front of a number as a negative number, and so starts incrementing numbers backwards:

To get around this problem place a minus in front of the incremental number, making it a double negative, which is a



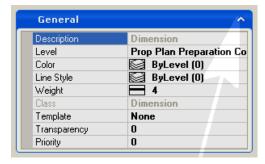


Quick Information

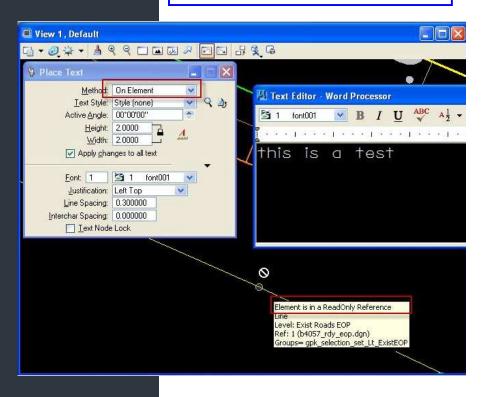
positive:



Instead of using the Element Information dialog to retrieve bits of information about a selcted element why not try the Quick Info dialog? To use it simply hover your cursor over the element and Press ALT (key)+ RESET (button). The resulting compact dialog will allow you to review and even change the Symbology values.



CivV8i - Place Text On Element



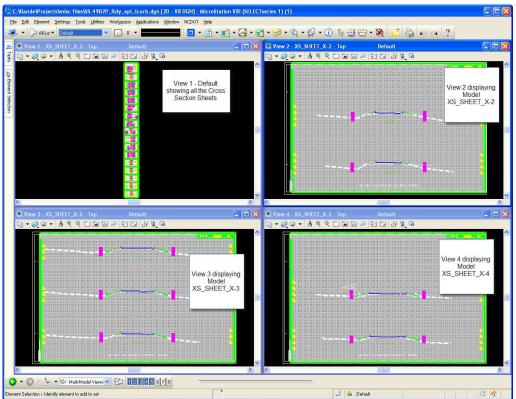
The Place Text command in the conjunction with the "On Element" method has changed in V8i. Apparently in V8i, the "On Element" method is only available to be used on elements that are in the current file. It can not be used on elements in a reference file. (This was not the case in V8 2004).



View More Than one Model at a Time



MicroStation V8 introduced multiple models in a design file. Now with MicroStation V8i SS1 you can view multiple models from the same file in separate views (up to eight). Just open multiple window and define which model to view from the View Attributes Dialog.



12 Ways to set your active level



- 1. From the *Attributes* tool box
- 2. Double click on the desired level in the *Level Manager*
- 3. Right-click and select Set Active from the Level Manager
- 4. Change Element Attributes with Level and Use Active Attributes enabled
- 5. *Match Element Attributes* with *Level* enabled.
- 6. SmartMatch
- 7. Double click the desired level in the *Level Display* dialog
- 8. Highlight the desired level followed by a *Right Click* > *Set Active* in the *Level Display* dialog
- 9. Keyin *LV*= [level_number], ie: *LV*=12
- 10. Keyin *LV*= [level_name], ie: *LV*=annotation
- 11. Keyin Active Level [level_number]
- 12. Keyin *Active Level* [level_name]



Quick Kill

Ever wanted to kill a nonresponding windows program from the command line? Try this Key in the next time.

taskkill.exe /f/fi "status ew not responding"

Makes a great batch file also.

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Key Longitude, Latitude Coordinate Readout Keys

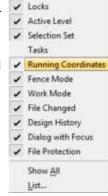
In MicroStation V8i and later releases that support geographic coordinate systems it is possible to obtain Longitude, Latitude coordinates from a design file. When a geographic coordinate system is selected using the Geographic tool box MicroStation automatically creates an Auxiliary Coordinate System based on the selected geographic coordinate system. By activating the geographic auxiliary coordinate system MicroStation can display coordinates in Longitude, Latitude units.

1. From the *Primary Tools* tool box select the **Auxiliary Coordinates** icon





- 2. In the Auxiliary Coordinates dialog double click on the geographic auxiliary coordinate system to make it active
- 3. Right click in the anywhere in the bottom *Status Bar* area and check on the **Running Coordinates** display



✓ Snap Mode



 Left click in the Running Coordinates area and set the display to ACS Position

The Running Coordinates will now display in Latitude, Longitude units.



Note: Tentative Snap coordinates displayed in the Message Center area will also display in Longitude, Latitude units.

From http://envisioncad.com/tips/



NCDOT Information Technology Engineering Technology Systems Engineering Applications Service CADD Services

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On the Intranet at

https://intranet.dot.state.nc.us/ portal/Home/Teams/IT/CADD/ tabid/63/Default.aspx

Last Word—Interesting and Unusual Facts on the Net

American car horns beep in the tone of F.

American chocolate manufacturers use about 1.5 billion pounds of milk -only surpassed by the cheese and ice cream industries.

Americans are responsible for about 1/5 of the world's garbage annually. On average, that's 3 pounds a day per person.

Americans consumed over 3.1 billion pounds of chocolate in 2001, which is almost half of the total world's production.

Americans drink over a billion pounds of coffee every year and around five million bottles of soda.

Americans eat more bananas than any other fruit: a total of 11 billion a year.

Americans on average eat 18 acres of pizza every day.

Americans spend approximately \$25 billion each year on beer.

Any month that starts on a Sunday will have a Friday the 13th in it.

Brazil got its name from the nut, not the other way round.

From BORED.COM (http://www.bored.com/greatfacts/)